

Congress of the United States
Washington, DC 20515

December 18, 2013

The Honorable Doc Hastings
Chairman
Committee on Natural Resources
1324 Longworth House Office Building
Washington, DC 20515

The Honorable Fred Upton
Chairman
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Hastings and Chairman Upton:

We are writing to request that the Committees on Natural Resources and Energy and Commerce hold a joint hearing on the issue of induced seismicity from wastewater injection wells.

The tremendous boom in U.S. oil and natural gas production over the past several years has been the result of the expanded use of hydraulic fracturing and horizontal drilling, techniques that generate large quantities of wastewater, which is often disposed of through underground injection. Underground fluid injection has been known to have the potential to cause earthquakes since the phenomenon was first observed in Colorado in the 1960s. A recent report by the National Research Council linked seismic events to wastewater injection in Arkansas, New Mexico, Ohio, Texas, and other locations.¹

In October, the U.S. Geological Survey (USGS) and the Oklahoma Geological Survey issued a statement highlighting the over-tenfold increase in earthquake frequency in Oklahoma since 2009. Their analysis found that a contributing factor to that increase "may be from activities such as wastewater disposal."² Earlier this year, a peer-reviewed study in the journal *Geology* linked underground fluid injection to the largest earthquake ever recorded in the state of Oklahoma—a magnitude 5.7 quake in November 2011 that resulted in two injuries and significant property damage.³

It is not clear that current requirements under the Safe Drinking Water Act Underground Injection Control (UIC) program are adequate to address the risk posed by induced seismicity to

¹ *Induced Seismicity Potential in Energy Technologies*, National Academies Press, 2013.

² U.S. Geological Survey and Oklahoma Geological Survey, Earthquake Swarm Continues in Central Oklahoma (October 22, 2013) (online at <http://www.usgs.gov/newsroom/article.asp?ID=3710>).

³ *Potentially induced earthquakes in Oklahoma, USA: Links between wastewater injection and the 2011 M_w 5.7 earthquake*, *Geology* (March 26, 2013).

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critical surface infrastructure such as nuclear power plants and dams, not to mention homes and businesses in the vicinity of injection wells. The UIC permitting process currently does not take protection of surface facilities into consideration. Furthermore, UIC regulations do not appear to require the appropriate level of data collection necessary for scientists to pinpoint the locations and causes of many potentially induced earthquakes and to determine ways to mitigate or avoid them.

EPA began examining the issue of induced seismicity from underground injection in 2011. An agency working group drafted a report about the potential triggers of injection-induced seismicity and how UIC regulators can minimize these seismic events. Unfortunately, the agency has yet to finalize this report.⁴

In light of the increased seismic activity in hitherto seismically inactive locations, the need for additional data, and the potential regulatory gaps under the UIC program, we request that you convene a joint oversight hearing on this topic at the earliest possible opportunity.

Thank you for your attention to this critical issue.

Sincerely,



Peter A. DeFazio
Ranking Minority Member
House Committee on Natural Resources



Henry A. Waxman
Ranking Minority Member
House Committee on Energy and Commerce

⁴ 'Do not operate' quake-linked disposal wells -- EPA draft report, E&E (July 22, 2013).